

REMARKS

Claims 1 and 3-11 remain pending in the application. Claims 1 and 3-11 have been amended. Reconsideration of the rejection and allowance of the pending application in view of the following remarks are respectfully requested.

In the Office Action, the Examiner rejected claims 1-7 and 9-11 under 35 U.S.C. §103(a) as being unpatentable over Humpleman et al. (U.S. Patent No. 6,182,094) in view of Saito et al. (U.S. Patent No. 6,523,696) and Moyer (U.S. Patent Application Publication No. 2002/103898). Applicants respectfully traverse the rejection for at least the following reasons.

Applicants' independent claim 1 recites a home appliance control system which includes, inter alia, an external Internet network, an internal network, a home appliance, and a computing device that sets a private Internet protocol (IP) address and a port number of the home appliance such that the home appliance is connected to the internal network based on the set private IP address and port number. The computing device has a public IP address that enables access from the external Internet network. The home appliance control system also includes a communication module installed in the home appliance which stores the private IP address and port number of the home appliance.

Applicants' independent claim 7 recites a method for controlling a home appliance which includes, inter alia, installing a communication module in the home appliance. The communication module stores a set private IP address and port number of the home appliance. The method also includes setting a private IP address and port number of the home appliance with a computing device that has a public IP address

that enables access from an external Internet network.

As Applicants discuss at pages 7-8 of Applicants' specification, assigning both a port number and a private IP address to a home appliance reduces the possibility that control information is erroneously transferred to a home appliance.

Humpleman is directed towards a home network which includes a DHCP server 106 which is used for the discovery of home devices which are connected to the home network. See col. 6, lines 25-29. The DHCP server generates a unique IP address for each home device that is available on the home network. See col. 11, lines 13-16.

At page 3 of the Office Action, the Examiner acknowledges that Humpleman's DHCP server does not set a port number of a home device connected to Humpleman's home network. However, the Examiner asserts that Saito discloses a home appliance control system with a computer device that sets IP addresses and port numbers, and asserts that it would have been obvious to modify Humpleman by assigning port numbers to home appliances in order to communicate to a correct device if a single IP address is used as an access port.

Saito is directed towards a communication network system which constitutes a home network within a home. The home network includes a PC 210 which functions as a home automation server. See Figure 7 and col. 21, lines 41-53. In one embodiment, the PC 210 is the proxy for an air conditioner service and a microwave oven service. In this case, a port number of the PC 210 is assigned to each service. When access to the air conditioner service or the microwave oven service is desired, an external terminal accesses an IP address of the PC 210 as well as a port number corresponding to the desired service. See Figures 7 and 16A-D, and col. 24, line 35 – col. 25, line 3.

Applicants respectfully submit that Saito fails to disclose or suggest that the port number assigned to a service is stored in a communication module of a corresponding home device, as recited in Applicants' independent claims 1 and 7. Rather, Applicants submit that the port numbers assignments are only known to the PC 210 and the external terminal which accesses it.

Applicants further submit that Saito's home network does not include a computing device having a public IP address which sets a private IP address for a home appliance, as recited in Applicants' independent claims 1 and 7. Rather, Applicants submit that an external terminal which accesses one of Saito's home appliances accesses an IP address of the PC 210 and a port number of the home appliance. Thus, it is submitted that no separate private IP address is set for a home appliance.

Further, Applicants submit that there is no motivation to combine the teachings of Humpleman and Saito in the manner suggested by the Examiner. In the Office Action, the Examiner asserts that it would have been obvious to modify Humpleman by assigning port numbers to Humpleman's home devices in order to communicate to a correct device if a single IP address is used as an access point. Applicants respectfully disagree.

Applicants submit that Humpleman's system already communicates to a correct home device by addressing the unique IP address assigned to the home device. Applicants submit that since Saito does not teach a system in which both a private IP address and a port number are assigned to a home device, Saito does not suggest any motivation for assigning a port number to a home device which is already assigned a unique IP address.

Further, Applicants respectfully submit that neither Humpleman nor Saito disclose or suggest that a private IP address or port number of a home device is stored in a communication module installed in the home device, as recited in Applicants' independent claims 1 and 7.

Applicants respectfully submit that Moyer fails to overcome the above noted deficiencies of Humpleman and Saito. Moyer is directed towards a system for using SIP to communicate with networked appliances. Moyer discloses that the system includes a residential gateway in the form of a Home Firewall/Network Address Translator which authenticates messages to networked devices in a home domain 200. See paragraph 0073 at page 5 of Moyer. Applicants respectfully submit that port numbers are not set to Moyer's networked devices.

Thus, Applicants respectfully submit that the combination of Humpleman, Saito and Moyer fails to disclose or suggest a home appliance control system which includes a computing device that sets a private IP address and a port number of a home appliance, and a communication module installed in the home appliance which stores the private IP address and port number of the home appliance, where the computing device has a public IP address that enables access from an external Internet network, as recited in Applicants' independent claim 1.

Applicants also submit that the combination of Humpleman, Saito and Moyer fails to disclose or suggest a method for controlling a home appliance which includes installing a communication module in the home appliance and setting a private IP address and a port number of the home appliance with a computing device that has a public IP address, where the communication module stores the set private IP address

and port number of the home appliance, as recited in Applicants' independent claim 7.

For at least these reasons, Applicants respectfully submit that the 35 U.S.C. §103(a) rejection of independent claims 1 and 7 is improper, and thus respectfully request the Examiner to withdraw the rejection and allows claims 1 and 7.

Dependent claims 3-6 and 9-11 are also submitted to be in condition at least in view of their dependency on independent claims 1 and 7.

Applicants respectfully submit that claim 2 was cancelled by a previous amendment.

In the Office Action, the Examiner rejected claim 8 under 35 U.S.C. §103(a) as being unpatentable over Humpleman in view of Saito and Moyer, and further in view of Abrams et al. (U.S. Patent No. 6,587,739). Applicants respectfully traverse the rejection for at least the following reasons.

Applicants respectfully submit that Abrams, which is directed towards an appliance communication and control system, fails to overcome the above-noted deficiencies of Humpleman, Saito and Moyer. That is, Applicants submit that the combination of Humpleman, Saito, Moyer and Abrams fails to disclose or suggest a method for controlling a home appliance which includes installing a communication module in the home appliance and setting a private IP address and a port number of the home appliance with a computing device that has a public IP address, where the communication module stores the set private IP address and port number of the home appliance, as recited in Applicants' independent claim 7.

Applicants respectfully submit that dependent claim 8, which depends from claim 7, is allowable for at least the same reasons set forth above with respect to claim 7,

and thus respectfully request the Examiner to withdraw the 35 U.S.C. §103(a) rejection.

Based on the above, it is respectfully submitted that this application is now in condition for allowance, and a Notice of Allowance is respectfully requested.

SUMMARY AND CONCLUSION

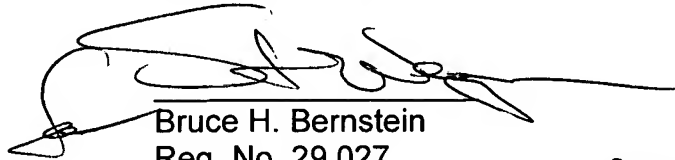
Entry and consideration of the present amendment, reconsideration of the outstanding Office Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate. Applicants have made a sincere effort to place the present invention in condition for allowance and believe that they have now done so.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should an extension of time be necessary to maintain the pendency of this application, including any extensions of time required to place the application in condition for allowance by an Examiner's Amendment, the Commissioner is hereby authorized to charge any additional fee to Deposit Account No. 19-0089.

Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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